

P18

1. [Control of numerous dispersed type power supplies]

Plural dispersed type power supplies (rotary machine power supplies for normal use and emergency use) are collectively controlled and managed by using a communication network and software. This system improves maintenance and control efficiencies of the dispersed type power supplies, and contributes to power supply and system operations.

[R&D status]

	Virtual Power Plant	Dispatching Backup Generation
Enforcing nucleus	○Encorp Corporation (founded in 1993)	○Invested by the Power Technology Development Public Corporation of the State of New York, and verified by Electrotec Corporation
Purpose	○To utilize as power supplies when supply and demand of power system are strained	○To utilize as peak cut measures when supply and demand of power are strained during hot season in the State of New York
Enforcing timing	○Developed products have been sold since 1996.	○Verification test has been started since 2001.
Enforcing state	○Currently, 1,000 units are controlled in the overall United States, and total capacity of the facilities has reached 300 MW.	○In Long Island of the State of New York, eight units of 4 to 6 MW class power generator for emergency use (Total capacity of the facilities is 30 MW.) are being tested together to verify the ability.
Others	○Approximately on the stage of practical use	○The State of New York bore the expenses.

P19

[Virtual Power Plant (Encorp Corporation)]

P20

[Virtual Power Plant (Electrotek Corporation)]

P21

1. [System to supply power of numerous qualities (Power Park)]
Systems to supply power in response to power quality requests
by customers in energy supply areas such as a high technology
industrial complex where area is limited

	Delaware Premium Power Park	Pleasant Power Park
Enforcing nucleus	○American Electric Power Corporation Siemens Power Corporation	○Real Energy, Panattoni Development, DTI Energy, BP/Solarex, AstroPower PowerLight Corporation, Nextek, Inc.
Purpose	○To supply power depending on different qualities in response to requests of customers within an area	○Same as the left hand column.
Enforcing time	○Verification test was conducted toward three years (from 2000 to 2002).	○Currently, facilities are under constructions.
Enforcing state	○Enforced in Retrofit Industrial Complex in Delaware, Ohio. ○11 companies (manufacturers, and so on) in the Complex participated. Scale of demand within the area has reached 14.4 MW.	○Verification test was conducted in North California.
Others	○Invested by EPRI	○Subsidized by DOE and California Energy Committee

P24

1. [Power network system in the specific area]

Power supply systems controlled and operated by combining plural small dispersed type power supplies, power storage equipment, and power load facilities in various ways within limited areas such as commercial areas and industrial complexes

	CERTS (Consortium for Electric Reliability Technology Solution)
Enforcing nucleus	○Laurence Berkeley National Laboratories, University of Wisconsin, Sandia National Laboratories, Southern California Edison Power Corporation (SCE), Oak Ridge National Laboratories, LBNL Corporation
Purpose	○To firmly improve power supply efficiencies within specific customer areas, and further, to supply power in response to needs for the customers such as power supplies depending on qualities and other demands.
Enforcing time	○Research has been conducted since 1999.
Enforcing state	○For power supply models which combine various dispersed type power supplies, software simulations for economical efficiencies, load adaptability, and so on are being conducted. Unlike a centralized verification test, researches and developments are being conducted individually by assigning roles to the individual agencies.
Others	○The Energy Department of the Federal Government and California Energy Committee assisted the funds, and Consortium has been placed in the Laurence Berkeley National Laboratories.